

ABSTRACT OF THE DISCLOSURE

An magnetic-field-generating apparatus comprising permanent magnet segments arranged to form a ring-shaped magnetic circuit having a center hole; adjacent permanent magnet segments having such different magnetization directions that their magnetization directions successively change along a circumferential direction of the magnetic circuit; a basic magnetization phase angle θ between the magnetization directions of the adjacent permanent magnet segments being $720/N$ ($^{\circ}$); and a magnetization direction of at least one permanent magnet segment in an essential unit obtained by circumferentially dividing the ring to $1/4$ being deviated from the basic magnetization phase angle θ by such a deviating angle that a uniform magnetic flux flows in one direction along a diameter of the center hole.